

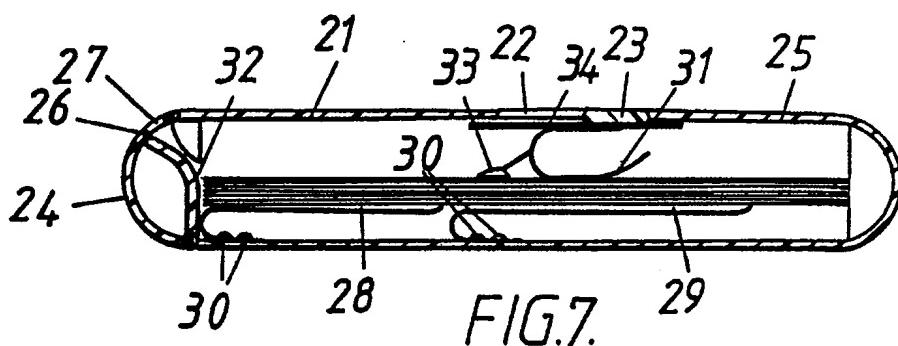
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## (54) Card dispenser

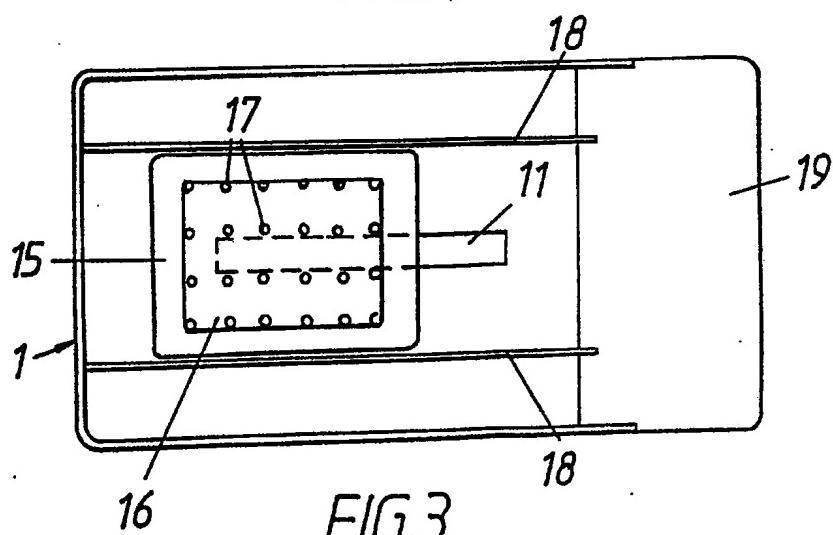
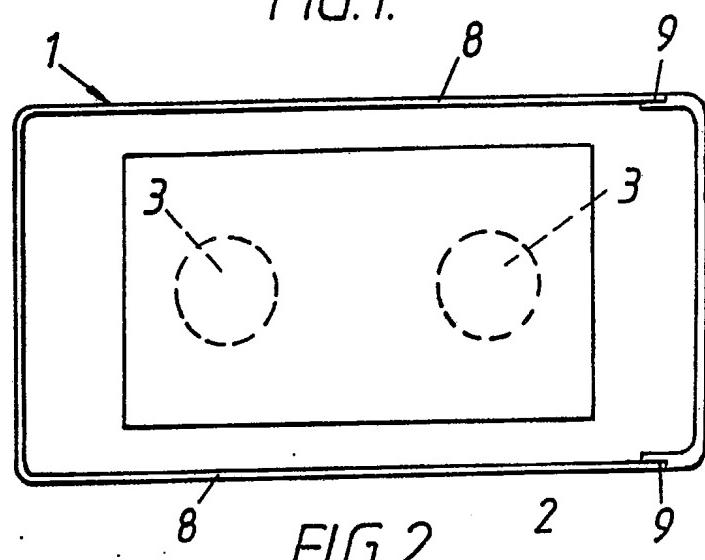
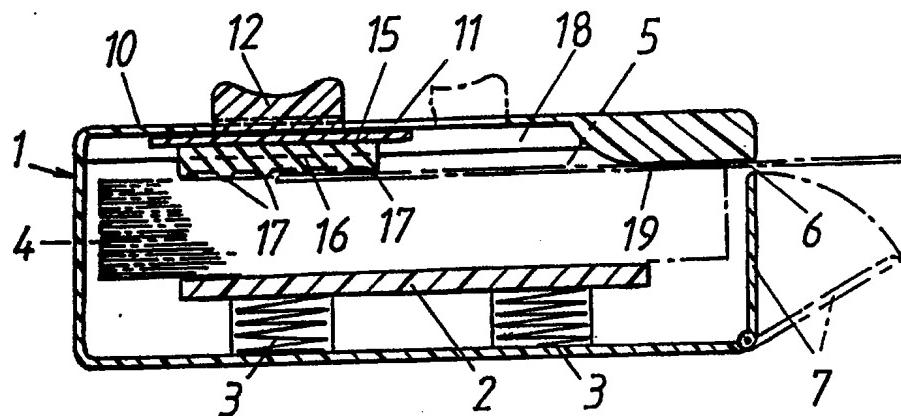
(57) A card dispenser particularly a pocket-sized dispenser for business cards comprises a housing (21) with an upper slot (22) in which a dispensing button (23) is slideably mounted. The forward end of the dispenser has a hinged lower flap (24) to refill the dispenser with business cards (25). The cards are dispensed singly through an outlet slot (26), the upper wall of which has a tensioned flap (27) to prevent more than one card being dispensed through outlet slot (26). The stack of business cards (25) are supported on lower leaf springs (28), (29) which are riveted at (30) to the base of housing (21). The tension of these springs is selected to co-operate with the tension of an upper leaf spring (31) having a rubber pad (33) to precisely position the top card of the stack in alignment with a guide wall (32) leading to the outlet slot (26).



GB 2 210 603 A

1/3

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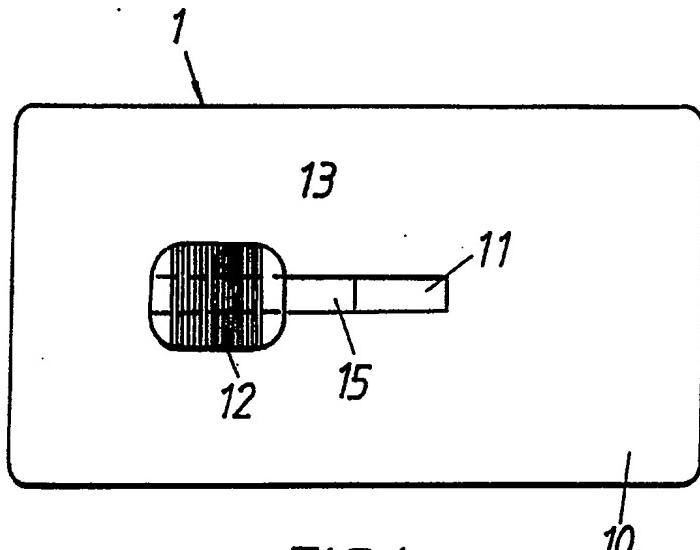


FIG. 4.

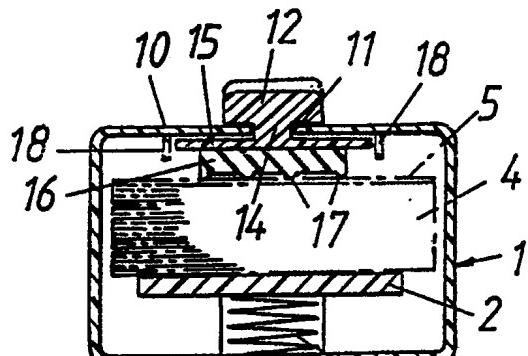


FIG. 5.

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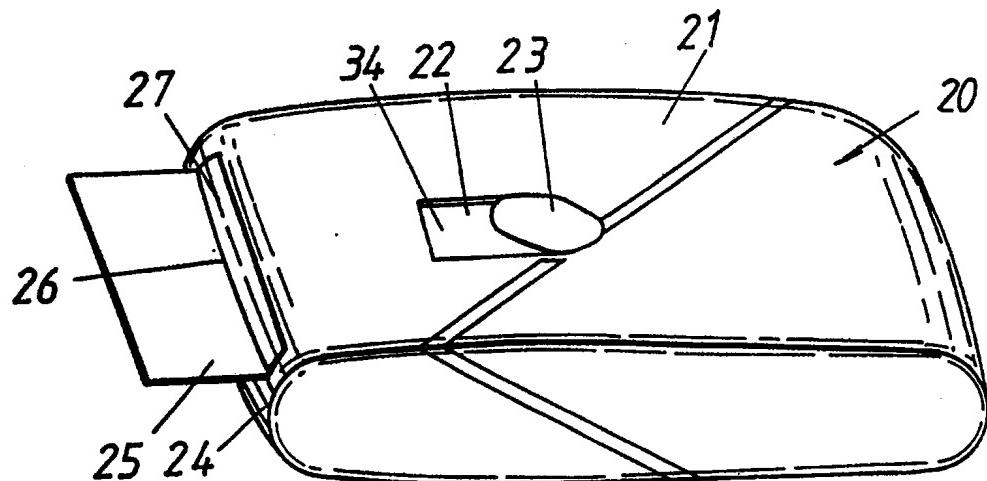


FIG. 6.

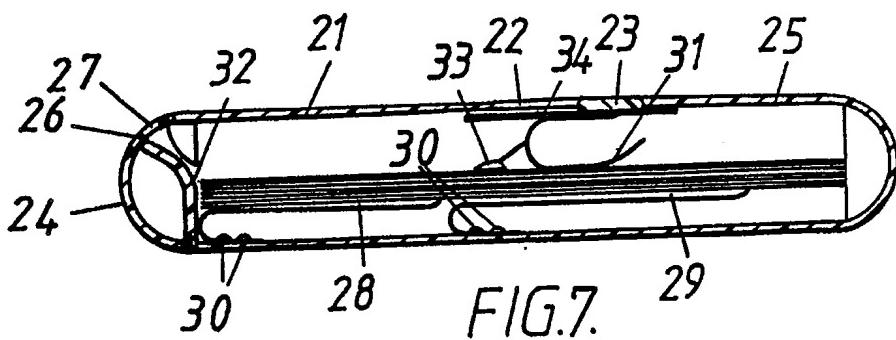


FIG. 7.

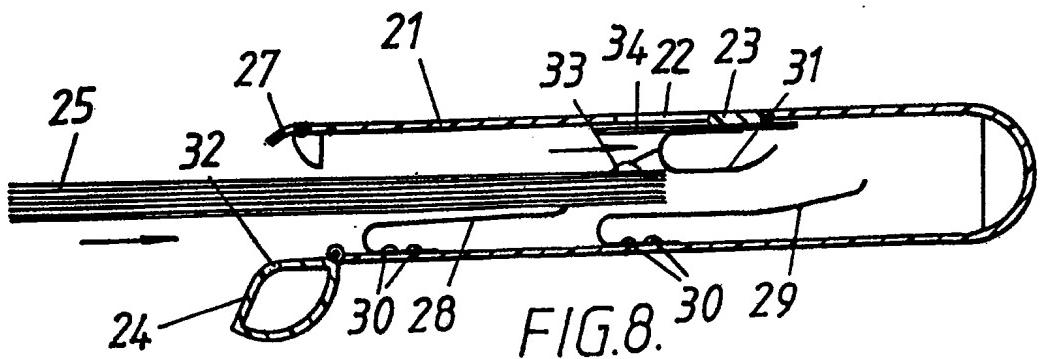


FIG. 8.

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CARD DISPENSER

This invention relates to a card dispenser and is particularly concerned with a pocket-sized dispenser for business cards.

5 Business cards are frequently kept in wallets, purses or the like. Selecting a card can sometimes be a cumberson exercise, and the cards can become dirty or damaged in the wallet.

10 The dispenser disclosed herein has a number of advantageous features, including the ability to store business cards safely and cleanly, and the ability to dispense cards easily when required.

15 According to one aspect of the present invention there is provided a business card dispenser comprising a housing for a plurality of business cards in a stack, an outlet slot for a card, means for biasing the stack in a direction such that the top card thereon is aligned with the slot, and means for engaging such top card and selectively urging it through the outlet slot.

20 It will be appreciated that the expression "top" used in relation to the card which is dispensed, is for the purposes of explaining the relative positions of the various parts, and similar expressions will be used hereinafter for the same

purpose. However, the dispenser can be used in any orientation.

The means for biasing the stack may comprise a platform on which the stack rests and biasing elements such as coil springs acting between the platform and a wall of the housing or another suitable part. Guide means may be provided for the platform and/or the springs. The platform may have dimensions slightly less than those of the inside of the housing, so that it is guided by walls of the housing.

The means for engaging the top card on the stack may comprise a pad of rubber or other synthetic material. It may have ridges, protrusions or other grip enhancing means. The grip between the engaging means and the top surface of the card should be greater than that between the bottom surface of the card and the underlying card. However, once the card has been urged through the slot it will generally be necessary to effect final dispensing by gripping the protruding part of the card manually and pulling it free of the housing. The material grip should not be so great as to make this act difficult. However, the grip overall should be sufficient to prevent cards simply falling out of the outlet slot when not desired.

Urging the card through the slot will generally be accomplished manually although powered operation would be possible. Thus, preferably the means for engaging the top

card, such as the pad of rubber, if attached to a manual operating member. This could be in the form of a rotary knob, lever or the like. However, preferably it is in the form of a sliding button for operation by e.g. a user's thumb. The button, on the outside of the housing, could be integral with or attached to a narrow portion extending through a guide slot in the housing and an enlarged portion inside the housing, which carries the card engaging means such as the pad. The guide slot will extend longitudinally towards the outlet slot.

From the upper edge of the outlet slot there preferably extend inwardly one or more guides for the upper surface of the top card on the stack. This will ensure that the card is aligned with the outlet slot. There could be a single guide surface extending the width of the outlet slot, or for example a guide rail on each side of the slot.

In terms of general construction, the dispenser will often be rectangular to match business cards. The sliding button may be positioned initially at the end of the housing remote from the outlet slot, so that the top card has its upper surface engaging the pad at one end and guides adjacent the outlet slot, at the other end.

The sliding button or like operating means may be biased, by springs or other resilient means, to the initial position so that it will return after dispensing a card.

Once a card has been dispensed, the pad will engage the next top card on the stack and the grip should not resist excessively, the return movement, whether by a spring or by simply returning the button manually. Grip enhancing means on the pad could be made directional in nature for example by angling ribs or the like, to provide increased grip when moving in the dispensing direction, and reduce grip when returning in the opposite direction. The button and pad, or like arrangement, may have a degree of freedom of movement towards and away from the top card, so that pressure and thus grip can be increased manually by pressing down on the button.

The dispenser may be provided as a sealed unit containing business cards as ordered or may be refillable at the suppliers, or may be provided with means for ready access to the inside of the housing so that a user can refill the housing with cards or change the cards. Thus, for example, one wall of the housing generally a side or end wall - will be in the form of a removable cover. This may be a push-on cover, a hinged cover, a slideable cover or the like. It may snap into and out of the closed position, and may be biased into the closed position.

In one embodiment, the cover is at the end of the housing with the outlet slot. The slot may be provided in the cover, or the cover may have an edge defining one edge of the outlet slot. With such arrangements it is possible by changing the

cover, to vary easily the width of the outlet slot to account for differences in the thicknesses of the cards to be dispensed.

According to another aspect of the invention, the card dispenser has two lower leaf springs to bias the stack of cards towards the means for engaging the top card of the stack, which means has an upper leaf spring which is precisely tensioned in relation to the two lower leaf springs to facilitate the dispensing of the top card and to present the next following card at the outlet slot.

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Preferably, the means for engaging the top card of the stack is operated by a slideable button or similar operating means which is flush with the upper surface of the housing.

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Conveniently, the button slides in a slot which has a cover plate supporting the button and which covers the slot when the button is slid to its retracted position.

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In one as present preferred embodiment, the end of the housing containing the outlet slot has a hinged flap which can be pivoted to provide an opening for inserting the stack of cards into the dispenser.

Conveniently, the upper wall of the housing adjacent the outlet slot has a tensioned flap to prevent more than one card at a time from being dispensed.

Embodiments of the card dispenser, according to the invention, will now be described, by way of example only, with reference to the accompanying drawings in which:

5

Figure 1 is a sectional elevation of a first embodiment of the dispenser;

Figure 2 is a plan view inside the dispenser housing;

Figure 3 is a plan view from beneath the top of the housing;

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Figure 4 is a plan view of the dispenser shown in Figures 1 to 3;

Figure 5 is a cross-section through the dispenser;

15 Figure 6 is a perspective view of a second embodiment of a pocket-size business card dispenser;

Figure 7 is a longitudinal cross-section of the dispenser shown in Figure 6 and

20 Figure 8 is a similar view to Figure 7 showing the outlet end of the dispenser in an open position to receive a stack of business cards.

The dispenser illustrated in Figures 1 to 5 comprises a rectangular rigid housing 1 of moulded plastics. Within the housing is a movable rectangular platform 2 biased upwardly by two coil springs 3. On this platform is supported a stack of about thirty business cards 4. The top card 5 is aligned with an outlet slot 6 at one end of the housing. At this end of the housing a hinged cover 7 is provided, for access to

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the interior of the housing. This snaps into engagement with side walls 8 of the housing, as shown at 9. The upper edge of cover 7 forms one edge of the slot 6. The slot is just wide enough to permit the passage of one business card.

5           In the upper surface 10 of the housing is provided a longitudinally extending guide slot 11. In this is mounted an operating member comprising a button 12 which is contoured and provided with ridges 13 to facilitate engagement by the finger or thumb of the user. This button is integrally formed with a narrowed portion 14 extending through the slot 11, and a plate 15 on the other side of the slot. On this plate is secured a pad of rubber 16 with grip-enhancing protrusions 17, which engages the end of the top card 5 remote from the slot 6.

15           A pair of longitudinally extending guides 18 on the lower surface of the top wall of the housing assist in guiding the plate 15.

20           On the underside of the top wall, adjacent the slot 6, is provided a guide surface 19. This is aligned with, and extends up to, the upper edge of the outlet slot 6. This guide surface guides the top card 5 of the stack when it passes through the outlet slot. It is approximately level with the card engaging protrusions 17 on pad 16.

25           In use, cover 7 is pivoted to an open condition in which the stack of cards 4 is loaded into the housing. The cover

is then snapped shut again. The stack of cards is biased upwardly by the springs 3 and the top card 5 engages, at one end, the protrusions 17 and pad 16, and at the other end, guide surface 19. The card is aligned with the outlet slot 6 but due to frictional forces will not simply drop or shake out of the outlet slot.

To dispense a card, button 12 is urged along slot 11 to the maximum extent. This causes top card 5 to pass through the outlet slot 6 so that a sufficient portion protrudes to be gripped between e.g., the thumb and forefinger of a user. The card is then removed entirely from the dispenser by the user. The user then urges button 12 back along the slot 11 to its maximum extent, so that it is ready for dispensing the new top card on the stack.

This dispenser is designed particularly for business cards. Its dimensions may, for example be in the region of 100 mm long, 55 mm wide, and 35 mm high to hold a stack of thirty cards. It can thus fit in a trouser or jacket pocket.

The second embodiment of the pocket-sized business card dispenser generally indicated at 20 as shown in Figure 6 is made from a rigid plastics material and has a smooth curved outline such that it can be comfortably held in the palm of the hand of the user, and unobtrusively kept in the pocket of a article of clothing when not in use.

The dispenser illustrated in Figures 6 to 8 comprises a housing 21 with an upper slot 22 in which a dispensing button 23 is slideably mounted. The forward end of the dispenser has a hinged lower flap 24 for replenishment of the dispenser with business cards 25. The cards 25 are dispensed one at a time through an outlet slot 26, the upper wall of which has a tensioned flap 27 to prevent more than one card from being dispensed through the outlet slot 26.

With particular reference now to Figures 7 and 8 a stack of, e.g. ten business cards 25 are supported on two lower leaf springs 28 or 29 which are riveted at 30 to the base of the dispenser housing 21. The tension of these springs is selected to co-operate with the tension of an upper leaf spring 31 to precisely position the top card of the stack in alignment with a guide wall 32 leading to the outlet slot 26. The co-operating tensions of the springs 28, 29 and 31 hold the stack of 10 cards in position and to eject the cards successively from the top card 25 to the last of the cards in the stack.

The upper leaf spring 31 is fixed at one end to the operating button 23, the other end being curved rearwardly to apply a prescribed downward pressure to the stack of cards 25. A rubber shoe 33 is resiliently mounted to the leaf spring 31 to apply a frictional force to urge the top card in the stack towards the outlet slot 26 when the operating button is slid forward in the slot 22. The operating button

lies flush with the upper wall surface of the housing 21. A cover plate 34 is secured to the button 23 and spring 31 to support the button and to cover the slot 22 when the button is slid to its retracted position, as shown in Figure 7.

5 The lower hinge flap 24, when in its closed position as shown in Figure 7, acts as a guide wall 32, while in its open position it allows a stack of business cards to be inserted in the dispenser as shown in Figure 8. The tensioned upper flap 27 applies a gentle pressure to the outlet slot 26 to prevent more than one business card from being dispensed.  
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In operation the lower flap 24 is pivoted downwards providing an aperture through which a stack of business cards 25 can be inserted into the dispenser. The flap is closed and the cards are supported on the two leaf springs 28 and 29 urging them upwards against the upper leaf spring 31 and the rubber shoe 33.  
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To dispense a card from the stack, the operating button 23 is slid forward causing the upper leaf spring 31 to move in the same direction. As a result of the upward force exerted by the card supporting leaf springs 28 and 29, the top card will be pressed firmly against the underside of the upper spring 31 so that the friction generated by the movement of the rubber shoe 33 and the tensioned upper spring will cause the top card to be moved forwards to engage the guide wall 32 and deflect upwards into the outlet slot 26  
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until enough of the card projects from the slot 26 to enable it to be removed manually.

The dispenser may be made of plastics, metal or the like. It may be of any suitable surface finish and could be provided with embellishments such as leather covering, metallic plating and so forth. The housing may carry advertising material, or a representation of the business cards, or e.g. have an external transparent pocket to contain one of the business cards and identify what is within the dispenser. Whilst the dispenser has been designed primarily with business cards in mind, it could be used to dispense other flat items which can be arranged in a stack.

CLAIMS

1. A business card dispenser comprising a housing for a plurality of business cards in a stack, an outlet slot for a card, means for biasing the stack in a direction such that the top card thereon is aligned with the slot, and means for engaging such top card and selectively urging it through the outlet slot.
2. A business card dispenser as claimed in claim 1 wherein the means for biasing the stack is a spring urged platform, the spring acting between the platform and a wall or other part of the housing.
3. A business card dispenser as claimed in claim 2, wherein guide means are provided for the platform.
4. A business card dispenser as claimed in claim 2 or 3, wherein guide means are provided for the spring.
5. A business card dispenser as claimed in claim 2 wherein the dimensions of the platform are slightly less than those of the inside of the housing so that it is guided by the walls of the housing.
6. A business card dispenser as claimed in any preceding claim, wherein the housing has opening means for access to the inside of the housing to refill the dispenser with business cards.

7. A business card dispenser as claimed in claim 6, wherein the opening means is a removable cover.
8. A business card dispenser as claimed in claim 6, wherein the opening means is a cover hinged to the housing.
9. A business card dispenser as claimed in claim 7, wherein the removable cover is a slideable cover which slides relative to the housing and snaps into a closed position in the housing.
10. A business card dispenser as claimed in any of claims 7 to 9, wherein the cover is at the end of the housing with the outlet slot.
11. A business card dispenser as claimed in claim 10, wherein the outlet slot is provided in the cover.
12. A business card dispenser as claimed in claim 10, wherein the cover has an edge defining one edge of the outlet slot.
13. A business card dispenser as claimed in any of claims 10 to 12, wherein the cover is replaceable with another cover to vary the width of the outlet slot.
14. A business card dispenser as claimed in claim 1, wherein the card dispenser has two lower leaf springs to bias the stack of cards towards the means for engaging the top card of the stack, which means has an upper leaf spring which is

precisely tensioned in relation to the two lower leaf springs to facilitate the dispensing of the top card and to present the next following card at the outlet slot.

15. A business card dispenser as claimed in any preceding claim, wherein the means for engaging the top card of the stack is operated by a slideable button or similar operating means which is flush with the upper surface of the housing.
16. A business card dispenser, as claimed in claim 15, wherein the button slides in a slot which has a cover plate supporting the button and which covers the slot when the button is slid to its retracted position.
17. A business card dispenser as claimed in any of claims 14 to 16, wherein the upper wall of the housing adjacent the outlet slot has a tensioned flap to prevent more than one card at a time from being dispensed.
18. A business card dispenser as claimed in any preceding claim wherein the means for engaging the top card on the stack comprises a pad of resilient material.
19. A business card dispenser as claimed in claim 18, wherein the pad is provided with gripping means to engage the upper surface of the top card on the stack.
20. A business card dispenser as claimed in claim 19, wherein the

gripping means is in the form of ridges protruding from the gripping surface of the pad.

21. A business card dispenser as claimed in claim 19, wherein the gripping means is in the form of protrusions spaced over the gripping surface of the pad.
22. A business card dispenser as claimed in any of claims 15 to 20, wherein the slideable button or similar operating means is spring biased to its initial position so that it will be automatically returned to its initial position after use.
23. Business cards dispensers, substantially as hereinbefore described with reference to and as shown by Figures 1 to 5 or Figures 6 to 8 of the accompanying drawings.

Amendments to the claims have been filed as follows

CLAIMS

1. A card dispenser, comprising a housing arranged to receive and hold a stack of a plurality of cards, outlet slot means comprising an outlet slot arranged for the dispensing of a single card from such stack, means for supporting such a stack in the housing and biasing the stack upwards, towards the level in the housing of the outlet slot, and means for engaging the top card in such stack and selectively urging it through the outlet slot in which said outlet slot means includes, a guide wall disposed in the housing arranged to guide the leading edge of said top card from such stack to said outlet slot.
2. A card dispenser as claimed in Claim 1 wherein said housing is provided with a hinged cover which is movable between an open position allowing insertion of such a stack of cards and a closed position retaining such stack of cards in the housing.
3. A card dispenser as claimed in Claim 2 wherein said guide wall is formed on the inner surface of said hinged cover.
4. A business card dispenser as claimed in any one of claims 1 to 3, wherein said supporting means further comprises two lower leaf springs to bias said stack of cards towards said means for engaging said top card of said stack, and wherein said engaging means has an upper leaf spring which is precisely tensioned in relation to said two lower leaf springs to facilitate the dispensing of said top card and to present a next following card at said means defining said outlet slot.
5. A business card dispenser as claimed in any one of claims 1 to 4, wherein said means for engaging said top card of said stack, is operated by a slideable button which is flush with

the upper surface of said housing.

6. A business card dispenser as claimed in Claim 5, wherein said button slides in a means defining a slot, and further comprising a cover plate, supporting said button, which covers said slot when said button is slid to its retracted position.
7. A business card dispenser as claimed in any one of claims 1 to 6, wherein the upper wall of said housing adjacent said means defining said outlet slot further comprises a tensioned flap to prevent more than one card at a time from being dispensed.
8. A business card dispenser as claimed in any one of claims 1 to 7, wherein said means for engaging said top card on said stack comprises a pad of resilient material disposed on the face end of said leaf spring.
9. A business card dispenser as claimed in Claim 8, wherein said pad is provided with gripping means to engage the upper surface of said top card in said stack.
10. A business card dispenser as claimed in Claim 9, wherein said gripping means is in the form of ridges protruding from said pad.
11. A business card dispenser as claimed in Claim 9, wherein said gripping means is in the form of protrusions spaced over the gripping surface of said pad.
12. A business card dispenser as claimed in Claim 5, wherein said slideable button is spring biased to its initial position so that it will be automatically returned to its initial position after use.

13. A business card dispenser substantially as herein described with reference to Figures 6, 7 and 8 of the accompanying drawings.